## 1899] Knowlton, — Flora of Mt. Abraham, Maine 191

below, narrowed to a conspicuous broad-winged petiole-like portion; upper leaves long-acuminate, serrate above, somewhat narrowed to a sessile base, all rather large, 0.5 to 1 dm. long, 1 to 3 cm. broad: inflorescence ample, dense, thyrsoid-paniculate: involucre 5 to 7 mm. high, the short outer bracts ovate-lanceolate, the inner oblong-linear, all blunt, or rarely acutish: achenes sparingly pubescent. — In damp woods, with S. macrophylla, Pursh, near the boundary between Limestone, Aroostook County, Maine, and Grand Falls Township, Victoria County, New Brunswick, Sept. 10, 1896 (Robert Cameron and M. L. Fernald). A handsome plant unlike other American forms of S. Virgaurea in its very tall stature and large upper leaves, which, with the dense inflorescence, give it a general resemblance to large forms of the more southern S. Elliottii. A fine clump of this large variety has flowered profusely in the Harvard Botanic Garden for three seasons.

GRAY HERBARIUM.

# ON THE FLORA OF MT. ABRAHAM TOWNSHIP, FRANKLIN COUNTY, MAINE.

C. H. KNOWLTON.

Мт. Авканам township is crossed by the forty-fifth parallel of latitude, and contains the range of mountains bearing on the maps the name of Mt. Abraham. It is uninhabited, and heavily wooded except in the higher regions. The range consists of three parts, two of which form the horseshoe-like mountain known as Mt. Abraham. The third part, next to Redington plantation, is called Bald Mountain, and is the highest portion of the range. The part of Mt. Abraham proper which is nearest to Salem is wooded nearly to the top; the other two peaks are bare. Deep valleys or "sags" separate the three parts from each other. The altitude of the mountain is nominally thirty-eight hundred feet, though it may never have been accurately measured. It was my privilege to explore this township botanically, July 3-6, 1899, and the flora proved very interesting. The slopes of the range were heavily wooded, principally with Betula papyrifera, B. lutea, Abies balsamea and Picea rubra, the fir appearing to be more abundant than the spruce. There was an undergrowth of Acer spicatum, Pyrus Americana, Amelanchier oligocarpa, Nemopanthus fascicularis and Ribes prostratum. Acer rubrum, Cornus alternifolia and Taxus Canadensis were occasional on the lower slopes, Sambucus racemosa and Viburnum cassinoides toward the top. The mossy woods were full of

### 192

### Rhodora

OCTOBER

Oxalis Acetosella; and Trientalis Americana and Maianthemum Canadense were frequent. Every open space was filled by Aspidium spinulosum. This was the only abundant fern, though on the lower slopes it was accompanied by Phegopteris polypodioides and Asplenium Filix-foemina. Strangely enough, however, there was an isolated patch of these two on the bare part of the middle range, far above any other ferns. Chiogenes serpyllifolia, Solidago macrophylla, Linnaea borealis and Goodyera repens grew in the upper regions. The only Carices in the mountain woods were Carex intumescens, C. rosea, C. laxiflora and C. canescens, var. alpicola, and these were not abundant. No grasses were found. The first range of the mountain is so heavily wooded that it bore nothing strictly alpine. An open place near its highest peak was covered with Rumex Acetosella, which grew with all the assurance of a native. The second range was also disappointing. It is very rocky, and the principal plants were Poa nemoralis, Anaphalis margaritacea, Kalmia angustifolia, Vaccinium Vitis-Idaea, V. uliginosum, V. Pennsylvanicum, Ledum latifolium and Empetrum nigrum. Narrow-leaved alpine forms of the last three plants were as common as the typical forms. Lycopodium annotinum, var. pungens, was also present, shading imperceptibly into the type. Cornus Canadensis was in blossom everywhere. Bald Mountain is the highest part of the range, and furnished the most interesting field. Here, for the first time on the range, occurred a few patches of sphagnum peat, and in this grew Comandra livida, Vaccinium Oxycoccus and Kalmia glauca. Higher up on the exposed parts, near the summit, grew Juncus trifidus, Diapensia Lapponica, Selaginella rupestris, and, at the very summit of Bald Mountain, at the highest point of the range, grew a large mass of Carex rigida, Gooden., var. Bigelovii, Tuckerm. (C. vulgaris, Fries, var. hyperborea, Boott.).

A comparison with the flora of Mt. Saddleback, about ten miles away, reveals certain differences. Arenaria Groenlandica, Vaccinium caespitosum and Calamagrostis Langsdorfii, which grow near the "pinnacle" of Saddleback, do not occur on Abraham. This lack, it seems to me, must be ascribed to the aridity of the range, rather than to any great difference in altitude. Saddleback abounds in springs, and has a rainwater pond on top, and great masses of sphagnum are frequent, while the entire Abraham range is dry, and has only a very few patches of sphagnum.

#### A method of obtaining bayberry wax 193 1899]

From the summit of Bald Mountain we went down into the valley of Rapid Stream, at least twelve hundred feet below. This is a deep wooded valley, shut in by mountains on three sides. This region furnished several interesting plants. Ribes lacustre replaced R. prostratum. Alnus viridis and Acer spicatum grew luxuriantly, one specimen of the former being four inches in diameter at the base. Here also grew Pyrola asarifolia, Moneses grandiflora, Listera convallarioides, Habenaria obtusata and H. dilatata. One of the most noticeable features of the mountain flora was the lateness of flowering. Sambucus racemosa and Maianthemum Canadense, which were well fruited away from the mountain, were found in full bloom on cold slopes near the summits. Trientalis Americana, Ledum latifolium, Acer spicatum and Cornus Canadensis, which had elsewhere finished blooming two to four weeks earlier, were still blossoming here.

GOODYERA PUBESCENS IN CENTRAL NEW HAMPSHIRE. - In Mr. Fernald's synopsis of the New England species of Goodyera in RHODORA for January, it is stated that, for G. pubescens, the northernmost station in New Hampshire is Jaffrey. I have found the plant in great abundance, growing in rich moist woods bordering a swamp on the road from "The Weirs" to Meredith Centre. In the same woods were a few plants of G. tesselata, never more than one in a spot, whereas G. pubescens grows, as in southern New England, in large patches. — PHILLIPS BARRY.

LACTUCA MORSSII IN MAINE. - The new wild Lettuce described in the January number of RHODORA, and named Lactuca Morssii, grows in Maine in the Kennebec valley. I find in my Herbarium a specimen of it, which I gathered August 2, 1897, by the side of an old country road about two miles from Skowhegan village. - LOUISE H. COBURN, Skowhegan, Maine.

[The identity of this specimen, recognized by Miss Coburn, has been fully confirmed by a comparison with the type at the Gray Herbarium. - ED.]

A METHOD OF OBTAINING BAYBERRY WAX. - In "Cape Cod" Thoreau tells of obtaining fine green wax from the berries of the bayberry